# Lake Erie Harmful Algal Bloom Bulletin

**08 August, 2019, Bulletin 12**

## Analysis

The *Microcystis* cyanobacteria bloom continues in the western basin of Lake Erie. Sentinel imagery (8/7) shows the bloom extending from Maumee Bay north along the Michigan coast to Brest Bay, east along the Ohio coast to the Portage River; and up to 13 miles northeast of West Sister Island, nearing the Ontario coast. Mild winds observed since Monday (8/5-7) promoted scum formation, corresponding to areas of dark red and orange in satellite imagery. Measured toxin concentrations remain above the recreational threshold where the bloom is most dense (appearing green from a boat). *Keep pets and yourself out of the water in areas where scum is forming*. The persistent cyanobacteria bloom in Sandusky Bay continues. No other blooms are present in Lake Erie.

## Forecasts

Winds (7-15 kn) forecast today through Saturday (8/8-10) will promote mixing and southeast transport of surface *Microcystis* concentrations. Winds (4-7 kn) forecast for Sunday and Monday (8/11-12) will promote scum formation. -Keeney, Davis

## Additional Resources

To find a safe place for recreation, visit the Ohio DOH "BeachGuard" site: *http://publicapps.odh.ohio.gov/beachguardpublic/*
Ohio EPA's site on harmful algal blooms: *http://epa.ohio.gov/HAB-Algae*
NOAA's GLERL provides additional HAB data here: *http://www.glerl.noaa.gov/res/HABs_and_Hypoxia*

**The images below are "GeoPDF". Please visit https://go.usa.gov/xReTC for instructions on viewing longitude and latitude.**

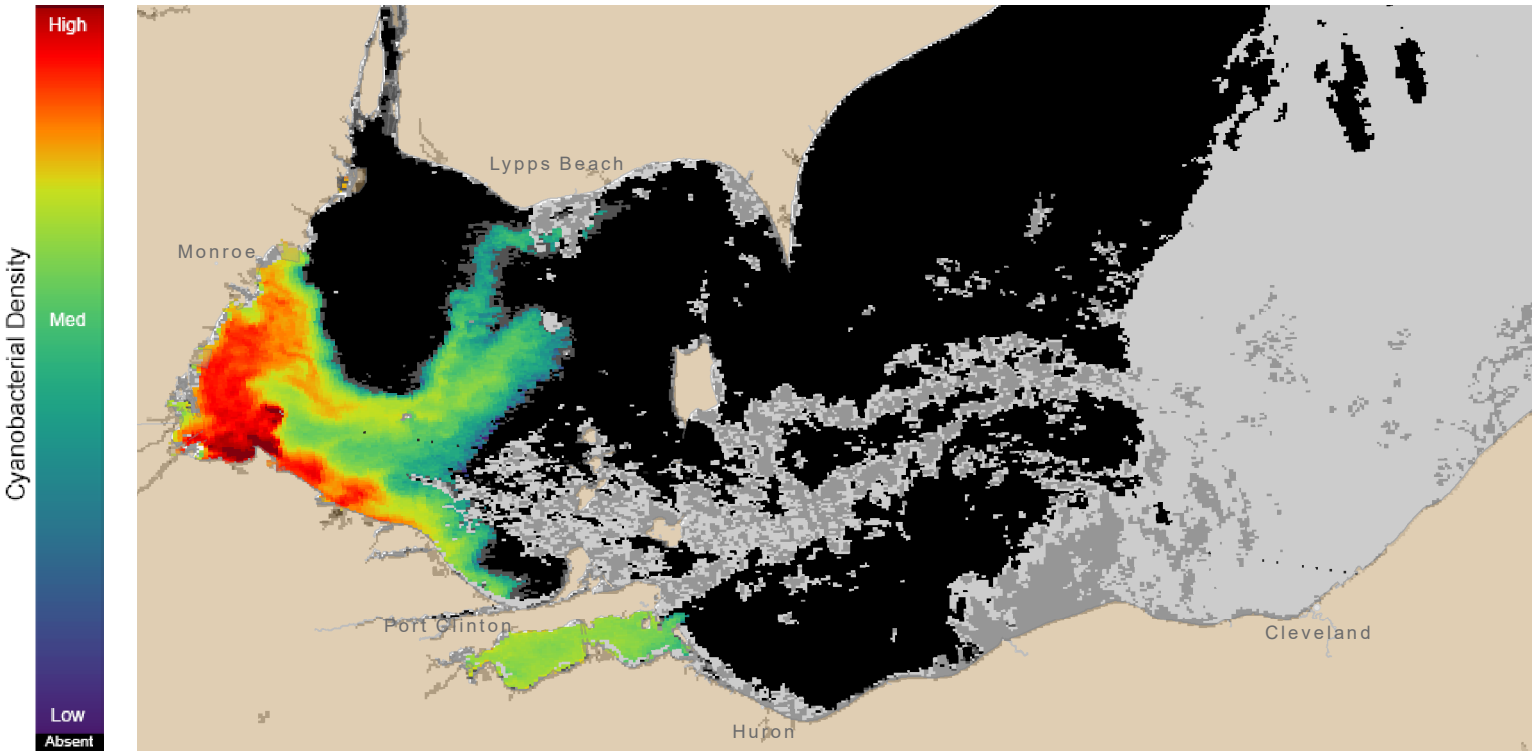



Figure 1. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 07 August, 2019 at 11:23 EST. Grey indicates clouds or missing data. The estimated threshold for cyanobacteria detection is 20,000 cells/mL.

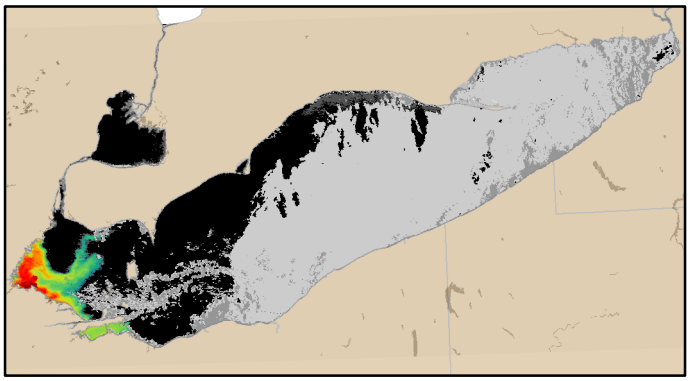
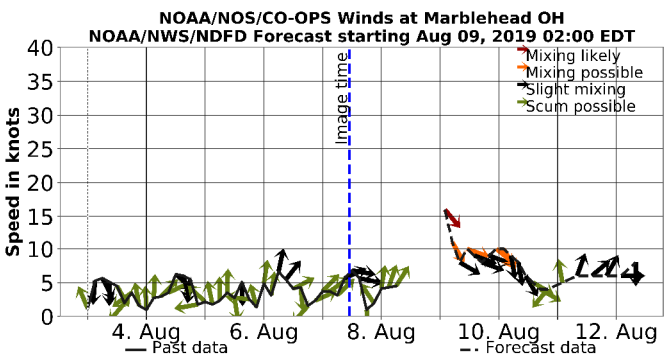


Figure 2. Cyanobacterial Index from modified Copernicus Sentinel 3 data collected 07 August, 2019 at 11:23.




Wind speed and direction from Marblehead, OH. Blooms mix through the water column at wind speeds greater than 15 knots (or 7.7 m/s).

*For more information and to subscribe to this bulletin, go to: https://tidesandcurrents.noaa.gov/hab/lakeerie.html*

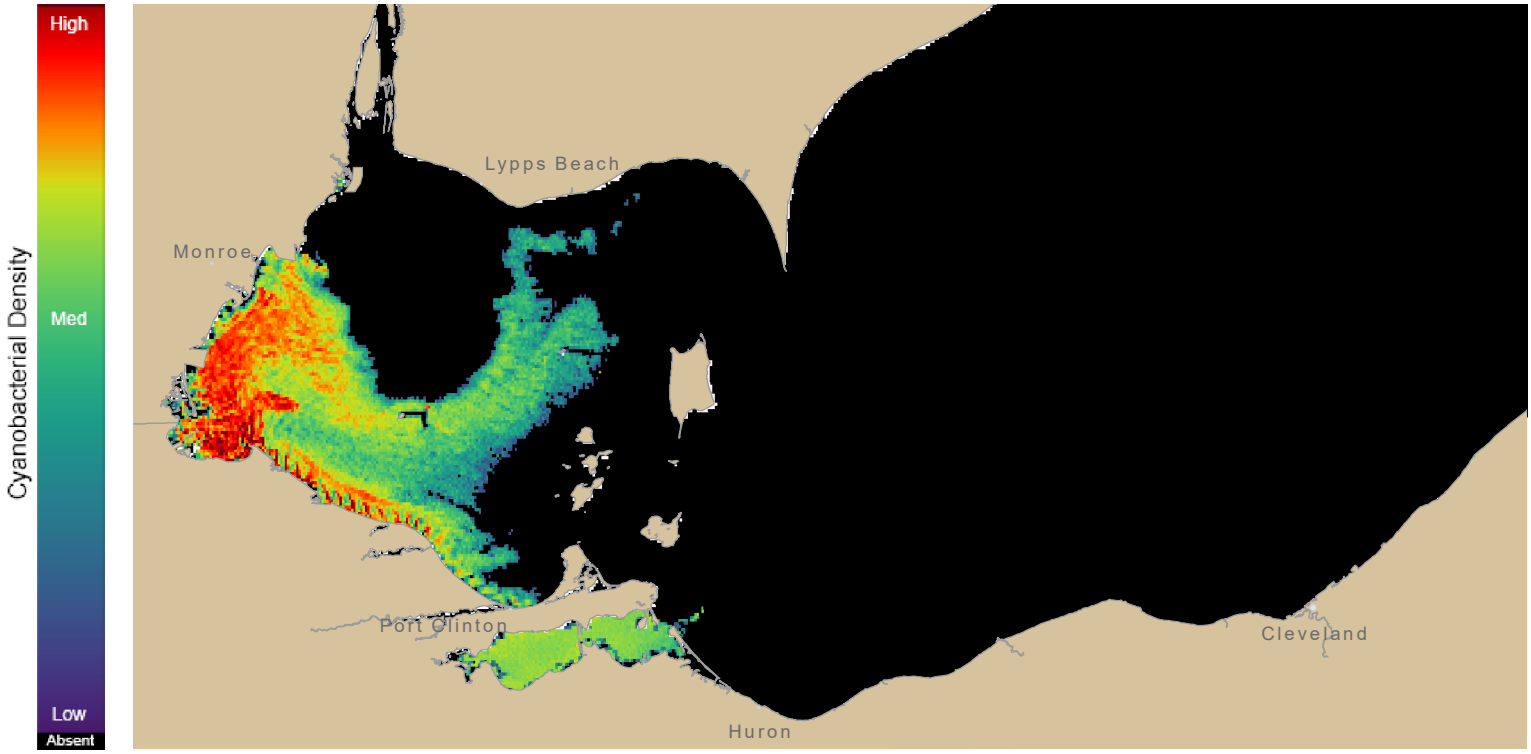



Figure 3. Nowcast position of bloom for 08 August, 2019 using LEOFS modelled currents to move the bloom from the 07 August, 2019

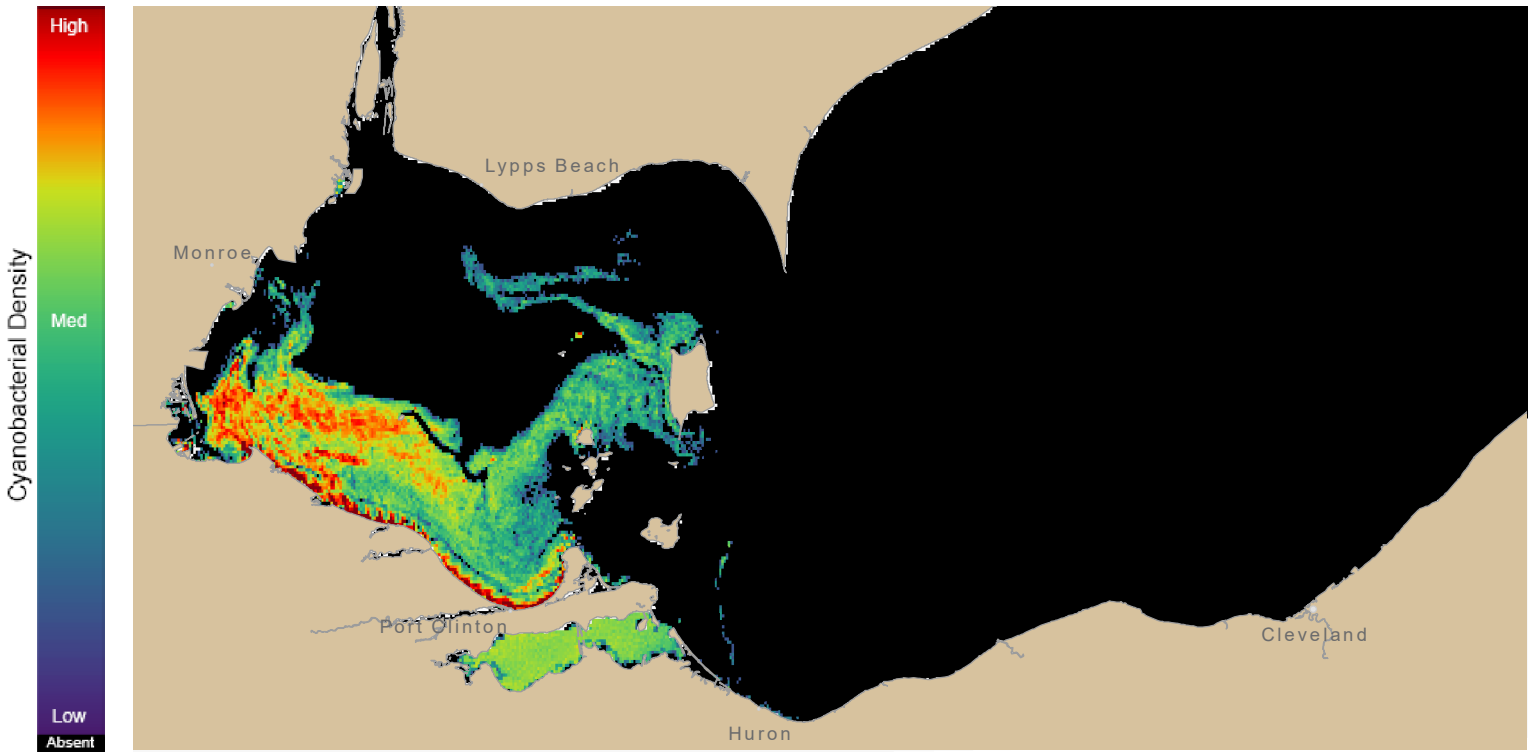
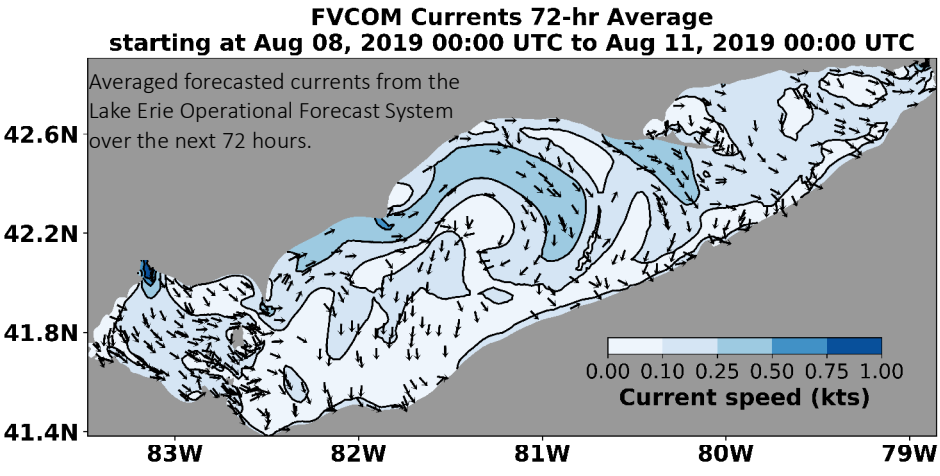



Figure 4. Forecast position of bloom for 11 August, 2019 using LEOFS modelled currents to move the bloom from the 07 August, 2019




*For more information and to subscribe, please visit the NOAA HAB Forecast page: https://tidesandcurrents.noaa.gov/hab/lakeerie.html*